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(54) Title: DETECTION OF NUCLEIC ACID REACTIONS ON BEAD ARRAYS

(57) **Abstract:** The present invention is directed to methods and compositions for the use of microsphere arrays to detect and quantify a number of nucleic acid reactions. The invention finds use in genotyping, i.e. the determination of the sequence of nucleic acids, particularly alterations such as nucleotide substitutions (mismatches) and single nucleotide polymorphisms (SNPs). Similarly, the invention finds use in the detection and quantification of a nucleic acid target using a variety of amplification techniques, including both signal amplification and target amplification. The methods and compositions of the invention can be used in nucleic acid sequencing reactions as well. All applications can include the use of adapter sequences to allow for universal arrays.

## INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER  
IPC 7 C12Q1/68

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C12Q

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, MEDLINE

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

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X	WO 99 18434 A (TUFTS COLLEGE ;WALT DAVID R (US); DICKINSON TODD A (US)) 15 April 1999 (1999-04-15)	1,3
A	page 21, last paragraph -page 23 page 34 claims 1-42	2,4-23
X	CZARNIK A W: "ILLUMINATING THE SNP GENOMIC CODE" MODERN DRUG DISCOVERY, AMERICAN CHEMICAL SOCIETY,, US, vol. 1, no. 2, 1998, pages 49-55, XP000920564 ISSN: 1099-8209	1,3
A	page 50, right-hand column -page 54; figures 2,3; table 1 --- -/--	2,4-23

☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

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- \*X\* document of particular relevance: the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
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- \* & \* document member of the same patent family

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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

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A	WO 97 31256 A (BLOK HERMAN ;BARANY GEORGE (US); KEMPE MARIA (US); ZIRVI MONIB (US) . 28 August 1997 (1997-08-28) page 1 -page 8; examples 1-7 -----	1-23

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Information on patent family members

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